

## **Tourette Syndrome**

## WHAT IS THE PUBLIC HEALTH ISSUE?

Tourette Syndrome (TS) is a heritable, neurological disorder characterized by multiple involuntary movements, called motor tics, and uncontrollable vocalizations called vocal or phonic tics. A tic is a sudden rapid, recurrent, non rhythmic, stereotyped motor movement or vocalization. People with TS have both motor tics and vocal tics present.

TS can affect people of all racial and ethnic groups; males are affected three to four times more often than females. An estimated 100,000 Americans have TS, and perhaps as many as 1 in 200 people show a milder form of the disorder, such as chronic or transient tics, in childhood. Although further research into the prevalence of TS will provide better data on rates in the United States, it is believed that TS affects 3 to 5 in every 10,000 individuals, and about 10 in every 10,000 school-aged children. The onset of TS and tics typically occurs when a child is 6 to 8 years of age, with diagnosis usually occurring around this time as well. Although TS and tics might appear, disappear, and reappear, these disorders are considered chronic.

TS and related disorders can place individuals at higher risk for learning, behavioral, and social difficulties. Many studies have linked TS and other tic disorders to higher rates of Attention-Deficit/Hyperactivity Disorder, Obsessive-Compulsive Disorder, and impairments associated with these comorbid conditions.

## WHAT HAS CDC ACCOMPLISHED?

- Established a cooperative agreement with the national Tourette Syndrome Association (TSA) to provide education and intensive training for health care professionals, educators, allied caregivers, and the general public about TS.
- Funded the Pennsylvania Tourette Syndrome Association to support educational and informational services targeted to Pennsylvania citizens who have TS, their families, and their community.
- Collaborated with University of Oklahoma Health Science Center to better understand the prevalence of TS and its public health impact by initiating a pilot epidemiologic study of TS and tics in school-aged children, in collaboration with the scientists from the National Center on Birth Defects and Developmental Disabilities.
- Collaborated with the Association of University Centers on Disabilities (AUCD) and the University of Washington to identify factors that contribute to the quality of life of people with TS.
- Launched a TS website.

## WHAT ARE THE NEXT STEPS?

- Developing an education and evaluation plan for the TSA's health care professional program.
- Implementing community-based epidemiologic research to pilot methods for determining the community prevalence of TS and other chronic tic disorders in school-aged children.
- Supporting TSA to deliver TS medical education opportunities to physicians in at least 16 locations across the United States.
- Expanding efforts and evaluating future methods to estimate the public health impact of TS.

For information on this and other CDC and ATSDR programs, visit www.cdc.gov/programs.

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